INTISARI

Latar Belakang. Infeksi bakteri Gram negatif resisten karbapenem menjadi ancaman serius dalam pelayanan kesehatan, terutama di ICU. Bakteri ini menunjukkan resistensi terhadap antibiotik spektrum luas, menyebabkan pilihan terapi semakin terbatas. Hal ini berdampak pada peningkatan angka mortalitas, durasi rawat inap, serta biaya perawatan pasien. Faktor risiko infeksi CR-GNB meliputi penggunaan antibiotik yang tidak rasional, prosedur invasif, dan kondisi imunitas pasien. Penelitian mengenai faktor risiko spesifik di Indonesia, khususnya di RSUP Dr. Sardjito, masih terbatas. Oleh karena itu, penelitian ini bertujuan untuk mengidentifikasi faktor risiko infeksi CR-GNB pada pasien ICU di rumah sakit tersebut.

Tujuan. Mengidentifikasi faktor risiko kejadian infeksi bakteri Gram negatif resisten karbapenem pada pasien yang dirawat di ICU RSUP Dr. Sardjito.

Metode. Penelitian ini merupakan studi *case-control* retrospektif terhadap 418 pasien ICU selama tahun 2023–2024. Data diambil dari rekam medis dan hasil kultur bakteri. Analisis menggunakan uji Chi-square dan regresi logistik multivariat.

Hasil. Sebanyak 38,5% pasien mengalami infeksi CR-GNB. Analisis multivariat menunjukkan bahwa lama rawat di ICU >10 hari (AOR = 2,15; p = 0,001) dan riwayat perawatan di *High Care Unit* (AOR = 2,03; p = 0,026) merupakan faktor risiko independen terhadap kejadian infeksi CR-GNB. Variabel lain seperti penggunaan antibiotik spektrum luas ≥7 hari dan trakeostomi signifikan pada analisis bivariat namun tidak bertahan dalam analisis multivariat.

Kesimpulan. Pasien yang dirawat di ICU lebih dari 10 hari atau memiliki riwayat perawatan di HCU memiliki risiko lebih tinggi mengalami infeksi CR-GNB.

Kata Kunci. Bakteri Gram negatif, resistensi karbapenem, faktor risiko, infeksi nosokomial, ICU

ABSTRACT

Background. *Carbapenem-resistant Gram-negative bacteria (CR-GNB) pose a serious threat in healthcare, particularly in intensive care units (ICUs). These bacteria exhibit resistance to broad-spectrum antibiotics, resulting in limited therapeutic options. This contributes to increased mortality, prolonged hospital stays, and higher healthcare costs. Risk factors for CR-GNB infection include irrational antibiotic use, invasive procedures, and compromised immunity. Research on specific risk factors in Indonesia, particularly at Dr. Sardjito General Hospital, remains limited. Therefore, this study aims to identify the risk factors associated with CR-GNB infections among ICU patients at this hospital.*

Objective. *To identify the risk factors for carbapenem-resistant Gram-negative bacterial infections in patients admitted to the ICU of Dr. Sardjito General Hospital.*

Methods. *This study is a retrospective case-control design involving 418 ICU patients during the period of 2023–2024. Data were obtained from medical records and bacterial culture results. Statistical analysis included Chi-square test and multivariate logistic regression.*

Results. *A total of 38.5% of patients were found to have CR-GNB infections. Multivariate analysis revealed that ICU stay longer than 10 days (AOR = 2.15; p = 0.001) and prior admission to the High Care Unit (AOR = 2.03; p = 0.026) were independent risk factors. Other variables, such as the use of broad-spectrum antibiotics for ≥7 days and tracheostomy, were significant in bivariate analysis but not in multivariate analysis.*

Conclusion. *Patients who stayed in the ICU for more than 10 days or had a history of admission to the HCU were at a higher risk of acquiring CR-GNB infections.*

Keywords: *Gram-negative bacteria, carbapenem resistance, risk factors, nosocomial infection, ICU*